

DEPARTMENT OF TRANSPORTATION

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November 1, 2002

04-Sol-37-15.0/16.9
04-OT1444
ACNH-P037(101)E

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SOLANO COUNTY IN VALLEJO FROM 0.1 KM WEST OF ENTERPRISE STREET TO 0.6 KM EAST OF DIABLO STREET.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on November 13, 2002.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, the Proposal and Contract, and the Federal Minimum Wages with Modification Number 19 dated 10-25-02. A copy of the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

Project Plan Sheets 48, 59, 61, 62, 63, 98, 160, 161, 162, 163, 164, 165, 166, 220 and 272 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 268 is added. Half-sized copies of the added sheet is attached for addition to the project plans.

Project Plan Sheet 300 placed after Project Plan Sheet 267 is deleted.

In the Special Provisions, in the "NOTICE TO CONTRACTORS," the fifteenth paragraph is revised as follows:

"Cross sections for this project are available at the Department of Transportation, Duty senior's Desk, 111 Grand Ave, Oakland, CA, Telephone (510)286-5209."

In the Special Provisions, Section 9, "DESCRIPTION OF BRIDGE WORK," the description of W37-N&S 29 CONNECTOR is revised as follows:

"A three-span cast-in-place prestressed concrete box girder structure, approximately 131 m long and approximately 12 m wide, on the pile foundations."

In the Special Provisions, Section 10-1.23, "MAINTAINING TRAFFIC," the second table in the fourth paragraph for Union Pacific Railroad is deleted.

04-Sol-37-15.0/16.9
04-0T1444
ACNH-P037(101)E

In the Special Provisions, Section 10-1.34, "EARTHWORK," the second row of the fourth table for WB37 to 29 (RAMP I) Bridge No. 23-222F in the fifteenth paragraph is deleted.

In the Special Provisions, Section 10-1.36, "EARTH RETAINING STRUCTURES," the "Geosynthetic Reinforcement Material," in subsection "MATERIAL," is replaced by "Geosynthetic Reinforced Material," as attached.

In the Special Provisions, Section 10-1.59, "ASPHALT CONCRETE," the thirty-third and the thirty-fourth (last two paragraphs) are deleted.

In the Special Provisions, Section 10-1.65, "PTFE BEARING," the first paragraph is revised to read as follows:

"PTFE bearing, consisting of steel reinforced elastomeric bearing pads, polytetrafluorethylene (PTFE) surfacing, studs, stainless steel and steel plates, shall conform to the details shown on the plans, the provisions in Section 51, "Concrete Structures," of the Standard Specifications, and these special provisions."

In the Special Provisions, Section 10-1.65, "PTFE BEARING," the following paragraph is added after the thirteenth paragraph:

"Studs shall conform to the requirement in Section 75, "Miscellaneous Metal," of the Standard Specifications."

In the Special Provisions, Section 10-1.65, "PTFE BEARING," the following paragraph is added after the thirty-third paragraph:

"Construction methods and procedures shall prevent grout or concrete seepage into the PTFE/elastomeric bearing assembly."

In the Special Provisions, Section 10-1.67, "SOUND WALL," subsection "MEASUREMENT AND PAYMENT," is removed and replaced at the end of Section 10-1.67, "SOUND WALL,".

In the Special Provisions, Section 10-1.71, "ARCHITECTURAL SURFACE (TEXTURED CONCRETE)," subsection "ABRASIVE BLASTING," is revised as follows:

"Fractured rib texture shall be abrasive blasted with fine abrasive to remove the sheen without exposing coarse aggregate."

In the Special Provisions, Section 10-1.72, "REINFORCEMENT," in "Production Test Requirements for Ultimate Butt Splices," of subsection "ULTIMATE BUTT SPLICES," the first sentence in the third paragraph is revised as follows:

"After all splices in a lot have been completed and the bars have been epoxy-coated when required, the QCM shall notify the Engineer in writing that all couplers in this lot conform to the specifications and are ready for testing."

In the Special Provisions, Section 10-1.77, "CLEAN AND PAINT STRUCTURAL STEEL," subsection "CLEANING," the following paragraph is added after the first paragraph:

"The inside surfaces of bolt holes shall be painted with one application of zinc primer (organic vehicle type) after the application of the undercoat of inorganic zinc on adjacent steel. The steel surfaces adjacent to the bolt holes shall be kept clean and protected from dripping during the application of the primer."

Addendum No. 1
Page 3
November 1, 2002

04-Sol-37-15.0/16.9
04-OT1444
ACNH-P037(101)E

In the Special Provisions, Section 10-1.77, "CLEAN AND PAINT STRUCTURAL STEEL," subsection "CLEANING," the following paragraph is added after the third paragraph:

"The inside surfaces of bolt holes shall be cleaned in conformance with the requirements in Surface Preparation Specification No.1, "Solvent Cleaning," of the "SSPC: The Society for Protective Coatings," and visible rust shall be removed."

In the Special Provisions, Section 10-1.92, "MISCELLANEOUS METAL (BRIDGE)," the following subparagraph is added to the second paragraph:

"B. Deck drain hangers and deck drainage expansion couplings."

In the Special Provisions, Section 10-3.01, "DESCRIPTION," the following paragraph is added after the second paragraph:

"Sprinkler control conduit is included in the following structures:

- A. Broadway Overhead, Bridge No. 23-219
- B. Mini Drive Undercrossing, Bridge No. 23-220"

In the Proposal and Contract, the Engineer's Estimate Items 26, 71, 77, and 183 are revised, and Item 103 is deleted as attached.

To Proposal and Contract book holders:

Replace pages 4, 6, 8 and 12 of the Engineer's Estimate in the Proposal with the attached revised pages 4, 6, 8 and 12 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachments

Geosynthetic Reinforced Material

The geosynthetic reinforcement material shall be configured as a geosynthetic and shall meet the requirements of these special provisions. The Engineer shall be furnished a Certificate of compliance in accordance with the provisions of Section 6-1.07, "Certificate of Compliance," of the Standard Specifications for the geosynthetic reinforcement material a minimum of one week prior to beginning placement of geosynthetic reinforcement material. The Certificate of Compliance shall be prepared and signed by a representative of the manufacturer who is a California-registered Civil Engineer.

Geosynthetic reinforcement material shall consist of material designed for use in subsurface geotechnical slope reinforcement applications. Geosynthetic reinforcement material shall be configured as either a geogrid or geotextile material. Geogrid shall have in addition to the requirements for geosynthetic reinforcement, a regular and defined open area. Geogrid shall obtain pullout resistance from the soil by a combination of soils shearing friction on the plane surfaces parallel to the direction of shearing and soils bearing on transverse grid surfaces normal to the direction of grid movement. The percentage of the open area for geogrids shall range from 50 to 90 percent of the total projection of a section of the material. Geotextiles shall have in addition to the requirements for geosynthetic reinforcement material, an irregular or regular open area with the spacing of open areas being less than 6.3 millimeters in any direction.

Only one type of geosynthetic reinforcement material shall be used at any one location.

Geosynthetic reinforcement material shall conform to the following requirements:

1. Long Term Design Strength (LTDS) for geosynthetic reinforcement material shall be equal to or greater than values shown on the plans or elsewhere in these specifications as determined by Geosynthetic Research Institute (GRI) Test Methods. LTDS for geogrid reinforcement and geotextile reinforcement shall be determined by Standard Practice GRI GG4 (a) and (b) and GRI GT7, respectively. These values are minimum average roll values.

Long Term Design Strength is the strength of the geogrid or the geotextile calculated by applying all partial factors of safety in accordance with GRI Standard Practice GG4 (a) and (b) or GT7, except that the product of the partial factors of safety for installation damage (based on a soil gradation possessing a D_{50} between 2.36 and 4.75 mm), chemical degradation, and biological degradation shall not be allowed as less than 1.30. The factor of safety for creep deformation shall be determined for a 75-year design life as determined by GRI GG4 (a) and (b) for geogrids or GRI GT7 for geotextiles. The 75-year design life strength is determined from the creep curve which becomes asymptotic to a constant strain line of 10 percent or less.

In the absence of specific test data, the partial factor of safety default values (installation damage, creep deformation, chemical degradation, biological degradation, and joint) as indicated in the Standard Practice GRI GG4 (a) and (b) and GRI GT7 shall be applied to the calculations of the LTDS.

2. Geosynthetic reinforcement material shall be resistant to naturally occurring alkaline and acidic soil conditions, and to attack by bacteria.

All test results which contributed to the calculations of the LTDS shall be submitted to the Engineer no less than two weeks prior to beginning placement of the geosynthetic reinforced embankment. All test results which contribute to the calculations of the LTDS shall be prepared and signed by a California-registered Civil Engineer.

Geosynthetic reinforcement material shall consist of high density polyethylene, polypropylene, high density polypropylene sheets, high tenacity polyester yarn, or polyaramide and shall meet the applicable material requirements found below.

High Density Polyethylene.--Geosynthetic reinforcement material consisting of high density polyethylene shall meet or exceed the following material requirements:

- 1) Be manufactured from high density polyethylene (HDPE) which conforms to ASTM Method D 1248.
- 2) Shall have a LTDS in the primary strength direction greater than or equal to 21.9 kilo-Newtons per meter.

Polypropylene.--Geosynthetic reinforcement material consisting of polypropylene or high-density polypropylene sheets shall meet or exceed the following material requirements:

- 1) Shall meet the requirements of ASTM Designation: D 4101, Group 1/Class1/Grade 2.
- 2) Shall have a LTDS in the primary strength direction greater than or equal to 21.9 kilo-Newtons per meter.

High Tenacity Polyester Encapsulated.--Geosynthetic reinforcement material consisting of high tenacity polyester yarn shall meet or exceed the following material requirements:

- 1) Be manufactured from high tenacity polyester yarn as determined by ASTM Designation: D 629. In addition to meeting the requirements for geosynthetic, geogrid shall be encapsulated in an acrylic latex coating or similar.
- 2) Shall have a LTDS in the primary strength direction greater than or equal to 21.9 kilo-Newtons per meter.

Polyaramides.--Geosynthetic reinforcement material consisting of polyaramide shall meet or exceed the following material requirements:

- 1) Be manufactured from high tenacity polyester yarn as determined by ASTM Designation: D 629.
- 2) Shall have a LTDS in the primary strength direction greater than or equal to 21.9 kilo-Newtons per meter.

Geosynthetic reinforcement material shall be handled and stored in accordance with the manufacturer's recommendations and these special provisions. Geosynthetic reinforcement material shall be furnished in an appropriate protective cover which shall protect it from ultraviolet radiation and from abrasion during shipping and handling. Only as much geosynthetic reinforcement material shall be placed as can be placed and covered with backfill in the same work shift.

The Contractor shall prepare the grade that is to receive the geosynthetic reinforcement material to the compaction and elevation tolerances described in the Standard Specifications under Section 19-2.05, "Slopes," and these special provisions. The grade shall be free of loose or extraneous material and objects that may damage the geosynthetic reinforcement material during installation. Geosynthetic reinforcement material shall be placed over either stiff native soils or fill compacted to a relative compaction of not less than 90 percent for a minimum depth of 0.15 meter.

Geosynthetic reinforcement material shall be handled and placed in accordance with the manufacturer's recommendations and these special provisions. The geosynthetic reinforcement material shall be laid horizontally as shown on the plans. The geosynthetic reinforcement material shall be placed in a wrinkle free manner, pulled taut, aligned, and anchored before backfill placement. Slack in geosynthetic reinforcement material shall be removed in a manner, and to such a degree, as approved by the Engineer. Geosynthetic reinforcement material shall be installed in a horizontal plane for the length shown on the plans.

Where the full length of geosynthetic reinforcement material as shown on the plans cannot be achieved along the sides or for other limited areas, the geosynthetic reinforcement material shall be trimmed as necessary to avoid the obstruction and to achieve the maximum area of coverage possible.

Geosynthetic reinforcement material shall be secured in place with staples, pins, sand bags, or backfill as required by construction conditions, weather conditions, or as directed by the Engineer to prevent the displacement of the geosynthetic reinforcement material during compaction and placement of the reinforcement material.

Geosynthetic reinforcement material shall be placed (unrolled) into the grade to form a continuous mat. Overlapping and splicing geosynthetic embankment material shall conform to the following:

Uniaxial geogrid and geotextile geotechnical fabric does not need to be overlapped along edges parallel to the direction of working tensile strength. Uniaxial geogrid and woven geotechnical fabric shall not be overlapped or spliced along edges perpendicular to the direction of working tensile strength, or as directed by the Engineer.

Biaxial geogrid shall be overlapped a minimum of 150 millimeters along edges parallel to the direction of working tensile strength, or as directed by the Engineer. Biaxial geogrid shall be overlapped a minimum of 1 meter along edges perpendicular to the direction of working tensile strength of reinforcement, or as directed by the Engineer.

The geosynthetic reinforcement material shall be placed in such a manner that the direction of maximum strength is oriented perpendicular to the retaining wall layout line. The Contractor shall verify correct orientation of the geosynthetic reinforcement material .

During spreading and compacting of the backfill, at least 150 millimeters, measured vertically, of backfill shall be maintained between the geosynthetic reinforcement material and the Contractor's equipment. Equipment or vehicles shall not be operated or driven directly on the geosynthetic reinforcement material.

Geogrid reinforcement may be joined with mechanical connections. Joints shall not be placed horizontally within 1.2 meters of another joint. Only one joint per length of geogrid shall be allowed. The joint shall be made for the full width of the strip by using a similar material with similar strength, and using a connection device supplied or recommended by the manufacturer. Joints in geogrid shall be pulled and held taut during backfill placement.

If the geosynthetic reinforcement material is damaged during construction operations, the damaged sections shall be repaired, at the Contractor's expense, by placing sufficient additional geosynthetic reinforcement material to cover the damaged area and to meet the following overlap requirements:

- 1) Edges of geogrid perpendicular to retaining wall layout line shall be overlapped for entire lengths by the small of: three aperture openings or 100 millimeters. Edges of geogrid parallel to retaining wall layout line shall be joined using a mechanical connection described in these special provisions.
- 2) Edges of geotextiles shall be overlapped a minimum of 150 millimeters on all sides.

ENGINEER'S ESTIMATE
04-0T1444

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (S)	120165	CHANNELIZER (SURFACE MOUNTED)	EA	120		
22 (S)	129000	TEMPORARY RAILING (TYPE K)	M	4090		
23 (S)	129100	TEMPORARY CRASH CUSHION MODULE	EA	190		
24	150206	ABANDON CULVERT	EA	8		
25	150221	ABANDON INLET	EA	3		
26	150608	REMOVE CHAIN LINK FENCE	M	1690		
27	150668	REMOVE FLARED END SECTION	EA	5		
28	150711	REMOVE PAINTED TRAFFIC STRIPE	M	7400		
29	029839	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE	M	200		
30	150715	REMOVE THERMOPLASTIC PAVEMENT MARKING	M2	210		
31	150722	REMOVE PAVEMENT MARKER	EA	840		
32	150744	REMOVE ROADSIDE SIGN (WOOD POST)	EA	19		
33	150747	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	4		
34	150769	REMOVE ASPHALT CONCRETE	M2	40		
35	150771	REMOVE ASPHALT CONCRETE DIKE	M	92		
36	029840	REMOVE DRAINAGE GATE	EA	1		
37	150805	REMOVE CULVERT	EA	4		
38	029841	CLEAN 600 MM DRAINAGE FACILITY	EA	1		
39	150820	REMOVE INLET	EA	5		
40	150821	REMOVE HEADWALL	EA	3		

ENGINEER'S ESTIMATE

04-0T1444

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	5187		
62 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	M3	4924		
63 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	M3	624		
64 (F)	049129	STRUCTURE EXCAVATION (RETAINING WALL) (TYPE D)	M3	178		
65 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	6937		
66 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	M3	2890		
67 (F)	193031	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	M3	130		
68 (F)	197020	EARTH RETAINING STRUCTURE	M2	1720		
69	198001	IMPORTED BORROW	TONN	535 000		
70	029846	INSTRUMENTATION INSTALLATION AND MONITORING	LS	LUMP SUM	LUMP SUM	
71 (S)	029847	DRAIN OUTLET PROTECTION	EA	8		
72 (S)	029848	EROSION CONTROL (NETTING)	M2	11 900		
73 (S)	203026	MOVE IN / MOVE OUT (EROSION CONTROL)	EA	12		
74 (S)	203003	STRAW (EROSION CONTROL)	TONN	37		
75 (S)	203014	FIBER (EROSION CONTROL)	KG	5920		
76 (S)	203021	FIBER ROLLS	M	8100		
77 (S)	029849	FLARED END SECTION PROTECTION	EA	9		
78 (S)	029850	TEE DISSIPATOR PROTECTION	EA	8		
79 (S)	203024	COMPOST (EROSION CONTROL)	KG	17 400		
80 (S)	203045	PURE LIVE SEED (EROSION CONTROL)	KG	770		

ENGINEER'S ESTIMATE

04-0T1444

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	490757	FURNISH PILING (CLASS 625C)	M	2970		
102 (S)	490758	DRIVE PILE (CLASS 625C)	EA	204		
103	BLANK					
104	490770	FURNISH PILING (CLASS 625) (ALTERNATIVE V)	M	1400		
105 (S)	490771	DRIVE PILE (CLASS 625) (ALTERNATIVE V)	EA	155		
106	029851	406MM CAST-IN-DRILLED-HOLE CONCRETE PILING (BARRIER)	M	2790		
107 (S)	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	
108 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	M3	2802		
109 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	M3	19 054		
110 (F)	510060	STRUCTURAL CONCRETE, RETAINING WALL	M3	848		
111 (F)	510072	STRUCTURAL CONCRETE, BARRIER SLAB	M3	209		
112 (F)	510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	M3	764		
113 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	M3	107		
114 (F)	511035	ARCHITECTURAL TREATMENT	M2	2341		
115 (S)	049132	FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (25M-30M)	EA	6		
116 (S)	049133	FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (35M-40M)	EA	21		
117 (S)	512401	ERECT PRECAST CONCRETE GIRDER	EA	27		
118 (F)	517961	SOUND WALL (BARRIER) (MASONRY BLOCK)	M2	3800		
119 (S-F)	518002	SOUND WALL (MASONRY BLOCK)	M2	1300		
120 (S)	518050	PTFE BEARING	EA	20		

ENGINEER'S ESTIMATE

04-0T1444

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
181 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	KG	9961		
182 (F)	750501	MISCELLANEOUS METAL (BRIDGE)	KG	19 915		
183 (S)	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	1380		
184	801900	CHAIN LINK GATE	EA	6		
185	820107	DELINEATOR (CLASS 1)	EA	120		
186 (S)	832003	METAL BEAM GUARD RAILING (WOOD POST)	M	1550		
187 (S-F)	833088	TUBULAR HANDRAILING	M	14		
188	833183	CONCRETE BARRIER (TYPE 27SV)	M	1260		
189 (S-F)	839521	CABLE RAILING	M	124		
190 (S)	839565	TERMINAL SYSTEM (TYPE SRT)	EA	8		
191 (S)	839591	CRASH CUSHION, SAND FILLED	EA	2		
192	839701	CONCRETE BARRIER (TYPE 60)	M	2370		
193 (F)	839702	CONCRETE BARRIER (TYPE 60A)	M	526		
194 (F)	839720	CONCRETE BARRIER (TYPE 732)	M	191		
195 (F)	049134	CONCRETE BARRIER (TYPE 732 MODIFIED)	M	2186		
196 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	M2	990		
197 (S)	840561	100 MM THERMOPLASTIC TRAFFIC STRIPE	M	22 600		
198 (S)	840562	150 MM THERMOPLASTIC TRAFFIC STRIPE	M	1210		
199 (S)	840563	200 MM THERMOPLASTIC TRAFFIC STRIPE	M	2180		
200 (S)	840567	100 MM THERMOPLASTIC TRAFFIC STRIPE (BROKEN 1.83 M - 0.30 M)	M	350		